



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,448	10/27/2003	Kathleen C.M. Campbell	SIU 7398	8896
321	7590	04/19/2006	EXAMINER	
SENNIGER POWERS ONE METROPOLITAN SQUARE 16TH FLOOR ST LOUIS, MO 63102			GRAFFEO, MICHEL	
			ART UNIT	PAPER NUMBER
			1614	
DATE MAILED: 04/19/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/694,448

Applicant(s)

CAMPBELL, KATHLEEN C.M.

Examiner

Michel Graffeo

Art Unit

1614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-33,35,36 and 38-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-33,35,36 and 38-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6 Apr 06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Action

Claims 1, 3-5, 7-33, 35-36 and 38-45 are pending and examined.

Applicant has amended claims 3, 15, 16 and provided arguments for the patentability of claims 1, 3-5, 7-33, 35-36 and 38-45 in the response filed 22 November 2005.

Applicant's arguments, see response, filed 22 November 2005, have been fully considered and are persuasive to the extent that the terminal disclaimer has been approved thereby removing the Double Patenting rejection, and the rejection under 35 USC §102 has been withdrawn. Yet, based on the amendment, the rejection over the Kowabata et al. reference is maintained as a rejection under 35 USC §103. As sited in the prior Office Action, all other rejections have been maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5, 7-33, 35-36 and 38-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over 5,466,678 (Kowabata et al) in view of Deegan et al. The nephrotoxicity, cytotoxicity and renal handling of a cisplatin-methionine complex in male Wistar rats, Toxicology, (1994), 89:1-14 and further in view of Ormond et al. Reduced Nephrotoxicity In Vivo and In Vitro of Cisplatin-methionine Complex, Brit. J. Pharmacology (suppl)., (1998), 95:584 (both of which Deegan et al. and Ormond et al. are added only as directly corresponding evidence to support the prior common knowledge finding of Kowabata et al.).

Kowabata (column 3, line 1 through column 4, line 8, Test Example 3, claims) discloses a method of using S-adenosyl-L-methionine to reduce nephrotoxicity of a platinum complex compound using the recited orders of administration, routes of administration, dosages and ratios of otoprotective agent to platinum coordination compound. The instant claims appear to differ over Kowabata in reciting a method for preventing ototoxicity. However, it would be inherent that S-adenosyl-L-methionine would prevent ototoxicity caused by a platinum complex compound, since a patient receiving a platinum complex compound is at risk for both nephrotoxicity and ototoxicity and using S-adenosyl-L-methionine to reduce nephrotoxicity would at the same time also prevent ototoxicity caused by the platinum complex compound. Additionally, Kowabata teach that the methionine agent can be administered prior to, simultaneously with or after the platinum compound (in current claims 7-14 and 41-45; col 3 lines 55-65).

Art Unit: 1614

Although Kowatbata do not disclose the methionine derivates of claim 35 for example, but such would be obvious over the teachings that " the present inventors have made extensive studies on SAME, focusing attention on the fact that glutathione or the like SH-compounds produced in the living organisms detoxicate active oxygen or chemically reactive toxicants through reaction therewith. As a result, the aforementioned objects have now been found to be achievable in accordance with the present invention." to the extent that L-methionine (claim 35) is involved in the production of S-adenosyl-L-methionine (in current claims 1, 3-5, 7-33, 35-36 and 38-45; see, Col 2 lines 10-17). For support of such obviousness, see Deegan et al. and Ormond et al. which both teach the administration of methionine and particularly L-methionine (in Ormond et al. paragraph 2) with cisplatin to reduce nephrotoxicity of the cisplatin.

Kowabata further teaches that examples of the platinum complex compounds described above include cisplatin (cis-diamine-dichloro-platinum; CDDP), carboplatin, dichloro-ethylenediamine-platinum (II), 1,2-diamino-cyclohexyl-platinum (II)-malonate or sulfate, diisopropylamino-trans-dihydroxy-cis-dichloro-platinum (IV), (-)-(R)-2-aminomethylpyrrolidine (1,1-cyclobutanedicarboxylate)platinum (II)-monohydrate and cis-diamineglycolateplatinum (in current claims 1, 3-5, 7-33, 35-36 and 38-45; see col 3 lines 27-37.). Thus, the combined references teach and make prima facie obvious how to use the claimed invention at the time that it was made.

Response to Arguments - 35 USC § 112

Applicant's arguments filed 22 November 2005 have been fully considered but they are not persuasive.

The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. It is not seen from the data in the specification that the compound of the claims can be used to treat ototoxicity. Applicant's argument regarding "treat" is not persuasive, since "treat" is understood as providing a cure or relief of an existing condition. To such extent, see Experimental treatments to prevent ototoxicity http://www.dizziness-and-balance.com/disorders/bilat/bilat_prevent.htm Retrieved 13 April 2006 which updates the awareness of preventing ototoxicity caused by cisplatin for example by teaching that "free radical generation plays an important role in auditory toxicity from aminoglycosides, cisplatin and noise. Agents that reduce free radical formation may be protective and manipulations that increase free-radicals are harmful to hearing. Also agents that inhibit programmed cell death (apoptosis), are thought to have some promise in preventing neuronal death, although they also have a propensity to promote tumors. At this writing, there are exploratory studies done in animals which do show that these agents are protective, but the delivery method is often impractical and the risk/benefit profile of these agents in humans needs to be established." which shows that a preventative measure has not yet been established somewhat in light of the issues concerning delivery of active agents.

Response to Arguments - 35 USC § 102

Applicant's arguments filed 22 November 2005 have been fully considered and are persuasive for the reasons presented in Applicant's response.

Conclusion

No claim is allowed.

Applicant's amendment, specifically the deletion of S-adenosyl-L-methionine, necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michel Graffeo whose telephone number is 571-272-8505. The examiner can normally be reached on 9am to 5:30pm Monday to Friday.

Art Unit: 1614

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low can be reached on 571-272-0951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

14 April 2006
MG

m6

Christopher S. F. Low
CHRISTOPHER S. F. LOW
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600